No. 8400046

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

D.J. van der Have B.V.

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF *eighteen* YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, IMPORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

KENTUCKY BLUEGRASS

'Asset'

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office *to be affixed at the City of* Washington *this* 25th *day of* January *in the year of our Lord one thousand nine hundred and* eighty-five.

Attest:

Kenneth A. Evans

Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

John R Block

Secretary of Agriculture

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
LIVESTOCK, MEAT, GRAIN & SEED DIVISION

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

(Instructions on reverse)

FORM APPROVED: OMB NO.0581-0055

No certificate for plant variety protection may be issued unless a completed application form has been received (5 U.S.C. 553).

1. NAME OF APPLICANT(S)
D.J. van der Have B.V.

2. TEMPORARY DESIGNATION
HV 71

3. VARIETY NAME
ASSET

4. ADDRESS *(Street and No. or R.F.D. No., City, State, and Zip Code)*
P.O. Box 1
4420 AA Kapelle the Netherlands

5. PHONE *(Include area code)*
1135-2151

FOR OFFICIAL USE ONLY

PVPO NUMBER
8400046

6. GENUS AND SPECIES NAME
Poa pratensis

7. FAMILY NAME *(Botanical)*
-

FILING
DATE 2/9/84
TIME 2:30 ☐ A.M. ☒ P.M.

8. KIND NAME
Kentucky Bluegrass

9. DATE OF DETERMINATION
1978

FEES RECEIVED
AMOUNT FOR FILING
$ 1,000
DATE 2/9/84
AMOUNT FOR CERTIFICATE
$ 500.00
DATE 12/27/84

10. IF THE APPLICANT NAMED IS NOT A "PERSON," GIVE FORM OF ORGANIZATION *(Corporation, partnership, association, etc.)*
Corporation

11. IF INCORPORATED, GIVE STATE OF INCORPORATION
the Netherlands

12. DATE OF INCORPORATION

13. NAME AND ADDRESS OF APPLICANT REPRESENATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS
Mr. Stan Rollin
6802 Orem Drive
Laurel MD 20707

14. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED

a. ☒ Exhibit A, Origin and Breeding History of the Variety *(See Section 52 of the Plant Variety Protection Act.)*

b. ☒ Exhibit B, Novelty Statement

c. ☒ Exhibit C, Objective Description of the Variety *(Request form from Plant Variety Protection Office.)*

d. ☒ Exhibit D, Additional Description of the Variety

15. DOES THE APPLICANT(S) SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED? *(See Section 83(a) of the Plant Variety Protection Act.)*
☐ Yes *(If "Yes," answer items 16 and 17 below)* ☒ No

16. DOES THE APPLICANT(S) SPECIFY THAT THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?
☒ Yes ☐ No

17. IF "YES" TO ITEM 16, WHICH CLASSES OF PRODUCTION BEYOND BREEDER SEED?
☐ Foundation ☐ Registered ☒ Certified

18. DID THE APPLICANT(S) FILE FOR PROTECTION OF THE VARIETY IN THE U.S. OR OTHER COUNTRIES?
Netherlands 1980-11-7
Germany 1983-11-2
☒ Yes *(If "Yes," give names of countries and dates)*
☐ No

19. HAVE RIGHTS BEEN GRANTED IN THE U.S. OR OTHER COUNTRIES?
Netherlands february 1984
☒ Yes *(If "Yes," give names of countries and dates)*
☐ No

20. The applicant(s) declare(s) that a viable sample of basic seeds of this variety will be furnished with the application and will be replenished upon request in accordance with such regulations as may be applicable.

The undersigned applicant(s) is (are) the owner(s) of this sexually reproduced novel plant variety, and believe(s) that the variety is distinct, uniform, and stable as required in Section 41, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act.

Applicant(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.

SIGNATURE OF APPLICANT A.J.P. van Wijk — DATE 2-2-1984

SIGNATURE OF APPLICANT — DATE

FORM LMGS-470 (9-81) (Edition of 1-78 is obsolete)

INSTRUCTIONS

General: Send an original copy of the application and exhibits, at least 2,500 viable seeds, and $500 fee (*$250 filing fee and $250 examination fee*) to U.S. Department of Agriculture, Agricultural Marketing Service, Livestock, Meat, Grain and Seed Division, Plant Variety Protection Office, National Agricultural Library Building, Beltsville, Maryland 20705. *(See section 180.175 of the Regulations and Rules of Practice.)* Retain one copy for your files. All items on the face of the form are self-explanatory unless noted below.

Item

9 Give the date the applicant determined that he had a new variety based on (1) the definition in section 41(a) of the Act and (2) the date a decision was made to increase the seed.

14a Give: (1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method; (2) the details of subsequent stages of selection and multiplication; (3) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified and (4) evidence of uniformity and stability.

14b Give a summary statement of the variety's novelty. Clearly state how this novel variety may be distinguished from all other varieties in the same crop. If the new variety most closely resembles one or a group of related varieties: (1) identify these varieties and state all differences objectively; (2) attach statistical data for characters expressed numerically and demonstrate that these differences are significant; and (3) submit, if helpful, seed and plant specimens or photographs of seed and plant comparisons clearly indicating novelty.

14c Fill in the Exhibit C, Objective Description form, for all characteristics for which you have adequate data.

14d Describe any additional characteristics that are not described, or whose description cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the description of characteristics that are difficult to describe, such as plant habit, plant color, disease resistance, etc.

15 If "Yes" is specified *(seed of this variety be sold by variety name only as a class of certified seed)* the applicant may NOT reverse his affirmative decision after the variety has either been sold and so labeled, his decision published, or the certificate has been issued. However, if the applicant specified "No," he may change his choice. *(See section 180.16 of the Regulations and Rules of Practice.)*

16 See section 42 of the Plant Variety Protection Act and section 180.7 of the Regulations and Rules of Practice.

GPO 890-698

FORM APPROVED: OMB NO. 0581-0055

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
LIVESTOCK, MEAT, GRAIN, & SEED DIVISION
PLANT VARIETY PROTECTION OFFICE
BELTSVILLE, MARYLAND 20705

EXHIBIT C
(Bluegrass)

OBJECTIVE DESCRIPTION OF VARIETY
BLUEGRASS (*Poa* spp.)

NAME OF APPLICANT(S)	TEMPORARY DESIGNATION	VARIETY NAME
D.J. van der Have B.V.	HV 71	Asset

ADDRESS *(Street and No. or R.F.D. No., City, State, and Zip Code)*
P.O. Box 1
4420 AA Kapelle the Netherlands

OFFICIAL USE ONLY
PVPO NUMBER
8400046

Select the number which characterizes the variety in the features described below. For measured characteristics use leading zeros as necessary in order to fill all blanks (e.g., [0 9], [0 8 1]). Those characteristics marked with a star ✱ are preferred to be recorded. Any others should be recorded to help establish novelty or uniqueness. Characteristics described, including numerical measurements, should represent those that are typical for the variety. Measured data should be for SPACED PLANTS. Royal Horticultural Society or any recognized color fan may be used to determine plant colors; designate system used:_____. Describe location of test area, conditions, and number of plants used:_____

1. SPECIES:

[2] 1 = Poa compressa 2 = P. pratensis 3 = P. trivialis 4 = Others *(Specify)*_____

[ ] Chromosome number

2. ADAPTATION: (0 = Not tested, 1 = Not adapted, 2 = Adapted, 3 = Well adapted)

[3]	Northeast	[3]	Transitional zone	[3]	Southeast	[3]	North Central
[3]	Pacific N.W.	[3]	Intermountain	[2]	Southwest (CA., AZ.)		
[ ]	Other *(Specify)* _____						

3. MATURITY (At first anthesis): *Give test area* Wageningen (52° North Lat.)

✱ [5] 1 = Very early 2 = Early (Delta, Mystic) 3 = Medium early (Fylking, Nugget)
4 = Medium late (Newport, Adelphi, Aquila) 5 = Late (Merion, Baron, Enmundi)
6 = Very late (Pacific)

_____ Date of First Anthesis

[ ]	Number of days earlier than ✱ [ ]	1 = Nugget	2 = Fylking	3 = Delta	
	Maturity same as ✱ [ ]	4 = Merion	5 = Newport	6 = Baron	
[0 2]	Number of days later than ✱ [4]	7 = Mystic	8 = Sabre	9 = Reubens	

4. PLANT HEIGHT (At maturity-Average of longest shoot of 10 plants from soil surface to top of panicle): *Test area* Wageningen

✱ [3] 1 = Short (Nugget) 2 = Medium short (Baron, Fylking, Mystic)
3 = Medium tall (Merion, Adelphi) 4 = Tall (Delta) 5 - Very tall

✱ [0 6 8] cm Height

[0 5]	cm Shorter than ✱ [5]	1 = Nugget	2 = Fylking	3 =Delta	4 = Merion	
	Height same as ✱ [4]	5 = Newport	6 = Baron	7 = Mystic	8 = Sabre	
[1 0]	cm Taller than ✱ [6]	9 = Reubens				

5. GROWTH HABIT:

✱ [2] Habit: 1 = Prostrate (Nugget) 2 = Semi-prostrate (Merion) 3 = Erect (Delta)

[ ] cm Amount of spread by rhizomes in 1 year (give test area_____)

12. DISEASE RESISTANCE (Continued)

0	Flag Smut Urocystis agropyri	0	Pythium Blight Pythium spp.
0	Pink Snow Mold Fusarium nivale	0	Red Thread Corticium fuciforme
3	Ergot Claviceps purpurea		Other _____
★ 0	Fusarium Blight Fusarium roseum, F. tricinctum		Other _____
0	Typhula Blight Typhula spp.		
0	Dollar Spot Sclerotinia homoeocarpa		

13. INSECTS, NEMATODES, RESISTANCE: (0 = Not tested; 1 = Very susceptible; 2 = Moderately susceptible; 3 = Moderately resistant; 4 = Highly resistant)

0	Chinch Bug Blissus spp. (give species: _____)
0	Sod Webworm Crambus spp. (give species: _____)
0	Bluegrass Billbug Sphenophorus parvulus _____)
0	White Grub (Japanese Beetle, Chafers. (give species: _____)
0	Greenbug Aphid Schizaphis graminum
	Other _____
	Other _____

14. *Give variety or varieties that most closely resemble the application variety. For the following characteristics indicate Degree of Resemblance by placing in the column marked D.R., one of the following numbers: 1 = Application variety is less than comparison variety; 2 = Same as; 3 = More than, better, greater, darker, more disease resistant, etc.*

CHARACTER	VARIETY	D.R.	CHARACTER	VARIETY	D.R.
Maturity-heading	Baron	4 days later	Leaf width	Baron	3
Height	"	3	Leaf color spring	"	3
Seed size	"	1	Leaf color summer	"	3
Seed weight	"	1	Leaf color winter	"	3
Cold injury	"	2	Drought	"	3
Heat	"	2	Disease ★★		
Shade	"	2			

★★ *Specify each disease evaluated.*

15. ADDITIONAL DESCRIPTION:

Describe all characteristics and conditions that cannot be adequately described in this form in Exhibit D.

Exhibit A Origin and Breeding History of Asset Bluegrass

1. Material of American origin was planted as spaced-plants in 1972 - each clone consisting of 150 plants. Seed of each clone was harvested in 1973.

   In 1974 the progenies of these clones were sown in turf trials on sandy- and on clay soil in the vicinity of Rilland and in Buggingen, South-Germany.

   Two progenies appeared to have excellent turf performance with good disease resistance. One of them, 3-023, was subsequently named HV 71 Asset in 1978.

   To check apomixis and to multiply seed, a spaced plant field of Asset was established from seed, consisting of 60 clones that were represented by 25 plant per clone. A few off-types were discarded and the seed was harvested in 1979.

   The variety was further multiplied in 1980 - seed was harvested in 1981. No objectionable off-type plants were observed in the multiplication of Asset. Asset proved to be stable during 2 generations of reproduction.

   In 1983 enough breeder's seed was produced to cover the anticipated seed of the next ten years.

Exhibit B Novelty statement of Asset Bluegrass.

Asset bluegrass most closely resembles the variety Baron, but differs from it in the following characteristics:

- Maturity
  Asset is 4 days later than Baron. This was significant in 1982 and 1983 at P = 0.01.

- Flag leaf length
  Asset has 25 mm longer flag leaves than Baron. This was significant in 1982 and 1983 at P = 0.01.

- Panicle length
  The length of the panicle of Asset is 35 mm longer than that of Baron. This was significant in 1982 and 1983 at P = 0.01.

Statistical data.

Data provided by RIVRO/Wageningen, measured on 30 plants, which were planted in 1981 and 1982.

* Maturity (number of days after 31st March).

Year	Replicate	Asset	Baron	LSD 0.01
1982	I	48	44	
	II	48	45	
	mean	48	44	3.8
1983	I	49	44	
	II	50	47	
	mean	50	45	3.3

* Flag leaf length (mm)

Year	Replicate	Asset	Baron	LSD 0.01
1982	I	45	35	
	II	47	25	
	mean	46	30	14.1
1983	I	66	34	
	II	62	26	
	mean	64	30	9.7

* Panicle length (mm)

Year	Replicate	Asset	Baron	LSD 0.01
1982	I	112	67	
	II	108	82	
	mean	110	75	28.2
1983	I	98	69	
	II	95	54	
	mean	96	62	17.3

Exhibit D Additional description of Asset Bluegrass

Asset gives a very good turf tolerance. In comparison with Baron, Asset has a better winter and summercolour, both under high and low fertility.

A very clear distinction between both varieties under sward conditions is that Baron produces flowering heads in spring, even when closely mown, while Asset does not. Asset stays completely free of these, which has a positieve effect on the general turf appearance of the variety.